

Practitioner's Docket No. MPI00-079P1RCP2CN1M

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Kindly cancel claims 1-12, 20-22, 29-34, and 37-42. Please amend claims 13 and 14 and add new claims 43-48 as follows:

STATUS OF THE CLAIMS:

1.-12 Cancelled

13. (Currently amended) An isolated polypeptide selected from the group consisting of:

a) a fragment of a polypeptide comprising the amino acid sequence of ~~SEQ ID NO:2~~, SEQ ID NO:5, ~~SEQ ID NO:8~~, ~~SEQ ID NO:11~~, or ~~SEQ ID NO:15~~, wherein the fragment comprises at least 16 contiguous amino acids of ~~SEQ ID NO:2~~, SEQ ID NO:5, ~~SEQ ID NO:8~~, ~~SEQ ID NO:11~~, or ~~SEQ ID NO:15~~;

b) ~~a naturally occurring allele~~ a variant of a polypeptide comprising the amino acid sequence of ~~SEQ ID NO:2~~, SEQ ID NO:5, ~~SEQ ID NO:8~~, ~~SEQ ID NO:11~~, or ~~SEQ ID NO:15~~, wherein the polypeptide is encoded by a nucleic acid molecule which hybridizes to a complement of a nucleic acid molecule consisting of ~~SEQ ID NO:1 or 3~~, SEQ ID NO:4 or 6, ~~SEQ ID NO:7 or 9~~, ~~SEQ ID NO:10 or 12~~, or ~~SEQ ID NO:14 or 16~~ under stringent conditions;

c) a polypeptide which is encoded by a nucleic acid molecule comprising a nucleotide sequence which is at least 90~~60~~% identical to a nucleic acid comprising the nucleotide sequence of ~~SEQ ID NO:1~~, ~~SEQ ID NO:3~~, SEQ ID NO:4, SEQ ID NO:6, ~~SEQ ID NO:7~~, ~~SEQ ID NO:9~~, ~~SEQ ID NO:10~~, ~~SEQ ID NO:12~~, ~~SEQ ID NO:14~~, or ~~SEQ ID NO:16~~;

d) a polypeptide comprising an amino acid sequence which is at least 90~~60~~% identical to the amino acid sequence of ~~SEQ ID NO:2~~, SEQ ID NO:5, ~~SEQ ID NO:8~~, ~~SEQ ID NO:11~~, or ~~SEQ ID NO:15~~; wherein the polypeptide has dehydrogenase activity.

14. (Currently amended) The isolated polypeptide of claim 13 comprising the amino acid sequence of ~~SEQ ID NO:2~~, SEQ ID NO:5, ~~SEQ ID NO:8~~, or ~~SEQ ID NO:11~~.

15. (Previously presented) The polypeptide of claim 13, further comprising heterologous amino acid sequences.

16. (Previously presented) An antibody which selectively binds to a polypeptide of claim 13.

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17. (Previously presented) A method for detecting the presence of a polypeptide of claim 13 in a sample comprising:

- a) contacting the sample with a compound which selectively binds to the polypeptide; and
- b) determining whether the compound binds to the polypeptide in the sample to thereby detect the presence of a polypeptide of claim 13 in the sample.

18. (Previously presented) The method of claim 17, wherein the compound which binds to the polypeptide is an antibody.

19. (Previously presented) A kit comprising a compound which selectively binds to a polypeptide of claim 13 and instructions for use.

20.-22 Cancelled

23. (Previously presented) A method for identifying a compound which binds to a polypeptide of claim 13 comprising:

- a) contacting the polypeptide, or a cell expressing the polypeptide with a test compound; and
- b) determining whether the polypeptide binds to the test compound.

24. (Previously presented) The method of claim 23, wherein the binding of the test compound to the polypeptide is detected by a method selected from the group consisting of:

- a) detection of binding by direct detection of test compound/polypeptide binding;
- b) detection of binding using a competition binding assay; and
- c) detection of binding using an assay for DHDR activity.

25. (Previously presented) A method for modulating the activity of a polypeptide of claim 13 comprising contacting the polypeptide or a cell expressing the polypeptide with a compound which binds to the polypeptide in a sufficient concentration to modulate the activity of the polypeptide.

26. (Previously presented) A method for identifying a compound which modulates the activity of a polypeptide of claim 13 comprising:

- a) contacting a polypeptide of claim 13 with a test compound; and
- b) determining the effect of the test compound on the activity of the polypeptide to thereby identify a compound which modulates the activity of the polypeptide.

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27. (Previously presented) The method of claim 26, wherein said activity is modulation of virus activity.

28. (Previously presented) A method for identifying a compound which modulates virus activity comprising:

a) contacting the polypeptide of claim 13, or a cell expressing the polypeptide with a test compound; and

b) identifying the compound as a modulator of virus activity by determining the effect of the test compound on the activity of the polypeptide.

29.-34 Cancelled

35. (Previously presented) The method of claim 26, wherein said activity is modulation of cellular proliferation.

36. (Previously presented) A method for identifying a compound which modulates cellular proliferation comprising:

a) contacting the polypeptide of claim 13, or a cell expressing the polypeptide with a test compound; and

b) identifying the compound as a modulator of cellular proliferation by determining the effect of the test compound on the activity of the polypeptide.

37-42 Cancelled

43. (New) An isolated polypeptide comprising the amino acid sequence set forth in SEQ ID No:5.

44 (New) The polypeptide of claim 43, further comprising heterologous amino acid sequences.

45 (New) An isolated polypeptide consisting of the amino acid sequence set forth in SEQ ID No:5.

46 (New) An isolated polypeptide comprising the amino acid sequence of the polypeptide expressed from the plasmid deposited with ATCC as Accession Number PTA-1845.

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47 (New) An isolated polypeptide comprising an amino acid sequence which is at least 95% identical to the amino acid sequence of SEQ ID NO:5, wherein said polypeptide has a dehydrogenase activity.

48 (New) The polypeptide of claim 47, further comprising heterologous amino acid sequences